

TMATH 120

Autumn Term 2018

MW 1:30-3:30pm JOY 105
Lecturer: Ruth Vanderpool
Office Hours: UW 11:30-12:00 pm & Th 10:30-11:30am
@ TLC Snoqualmie 2nd floor

SLN 22327/22328
Office: MDS 303C
Phone: 253-692-4310

e-mail: rvanderp@u.washington.edu
<http://faculty.washington.edu/rvanderp/>

Course Description: TMATH 120 is a pre-calculus course intended to prepare you for calculus. To this end we will introduce the concept of a function, its notation, and then work with polynomial, exponential, logarithmic, trigonometric, and inverse trigonometric functions. Note, to progress to TMATH 124 you need to obtain a 2.0.

Available Alternative: The failure rate of TMATH 120 is high (about 1 in 4 or 1 in 3). There are lots of reasons for this, but many believe this is due to the sheer amount of material you are expected to learn in ten weeks. Consider taking the alternative, more reasonably paced, two-quarter sequences of TMATH 115 and TMATH 116.

Student Learning Objectives: By the end of the course students should be able to:

1. apply algebraic concepts in the precalculus setting to solve problems
2. read, interpret, identify, and generate graphs of elementary functions
3. create linear, quadratic, polynomial, or exponential functions to describe common behaviors in business and the sciences
4. use properties of logs and exponents to answer questions
5. understand how to use trigonometry (trigonometric functions, inverse-trigonometric functions, identities, Law of Sines & Law of Cosines) to solve problems.

The course supports the following department Student Learning Objectives across campus:

- (Env. Sci.) *Cultivate skills critical to interpreting scientific concepts for public understanding, including familiarity with the scientific method, information literacy, statistical data analysis, hypothesis formulation, & conceptual modeling, research project design & working collaboratively.* a
- (Env. Sci.) *Participate in engaged inquiry as a means of connection classroom learning to real-world environmental problem solving & establishing the skills needed for life-long learning.*
- (PPE) *Students will strengthen their analytic skills*
- (PPE) *Students will develop their ability to write with style and precision.*
- (PPE) *Students will become more competent with quantitative analysis.*
- (PPE) *Student will develop their ethical and logical reasoning.*
- (Info. Tech. & Sys.) *Students will be able to apply knowledge of computing and mathematics, appropriate to the discipline.*

Useful Items:

- Text: *Precalculus A Unit Circle Approach, 3rd Ed.* by Ratti, McWaters & Skrzypek.
- Access to the online homework system, MyMathLab.
Resources for purchasing the text & MyMathLab access are posted on the class website.
- Calculators: Either scientific or graphing are welcome although no internet access is allowed during quizzes and exams. The following resources exist on campus:

Location	Type/Model	# Available	Duration of Checkout
Library	TI-36X Pro (non-graphing)	39	4 weeks
Library	TI-83 (graphing)	31	4 weeks

Important Dates:

10/17	Exam I	10/2	Last day alter your schedule with no fees
11/7	Exam II	10/16	Last day to add a class
12/10	Final (1:30-3:30pm)	11/13	Last day to change grading option

Opportunities for Mastery: The details will follow but please note the *many* avenues available to master the material!

- Mini Quizzes, WrittenHW & MyMathLabHW allow multiple attempts for full credit.
- Discussion board responses improve WrittenHW or MyMathLabHW averages.
- Group presentations before each exam can add up to 4% to your exam scores.
- Response to math related articles available on day of exams.

Social Expectations: You are expected to work regularly with others in this class and thus need to make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

Activity Procedure: Activity sheets are used almost every day of class to give you an opportunity to work with the material. *Usually* these will not be collected or marked but the group will be asked to post their work & answer to one of the questions on the board. This will allow the class to see the answer as well as other methods to solving problems. (There is *always* more than one way to find a solution!)

Mini Quizzes: Small five minute quizzes emphasizing computational skills will be given every day. Practicing these skills will decrease the number of mistakes on exams and thus increase overall scores. The mini-quizzes will be administered until the class average is above 75%. Make up mini-quizzes are not given and only the top score from each set is recorded.

Homework Policy:

Two homework assignments will be posted every week on MyMathLab. The assignments will be due at 4pm on *Tuesdays* and *Thursdays*. Each assignment will be announced in class and posted on the calendar (found on the class website <http://faculty.washington.edu/rvanderp/>). Ten minutes will be set aside in each class to answer homework questions from the online system. To make the best use of this period I advise you to copy down the questions before class since MyMathLab often randomizes the numbers so that individuals have slightly different problems. Note then that when answering questions, I may not be considering your specific problem, but the techniques will usually still apply.

To access MyMathLab follow the steps below:

1. Log into TMath 120 Canvas course. *Always* enter through Canvas!
2. Click MyLab & Mastering in Course Navigation, and then open MyLab & Mastering.
3. Link Pearson to Canvas by either logging in or creating your Pearson account.
4. If you cannot log into MyMathLab, email me as soon as possible.

I have elected for inclusive access which should be purchased directly from the UW Seattle bookstore at <http://www.ubookstore.com/adoption-search-results?ccid=40264> for less than the instant access option. Details about these two options are provided in the textbook information posted on the website.

I suggest you post any homework questions on one of the MyMathLab discussions. These discussion boards give you a place to discuss any homework problems that were not addressed in class and, if answering a question correctly, earn you extra credit on your homework scores. You may also request MyMathLab extensions as they are given freely.

Hand written assignments will also be collected on *Tuesdays*. Note, the written homework is due on a day that class does *not* meet! An additional ten minutes of class on Mondays will be reserved to address questions from the handwritten assignments. *If completed early, you may turn these in to the Homework folder on Monday at the end of class*, otherwise slide your *stapled* assignment under my office door in MDS 303C by 4pm on Tuesday.

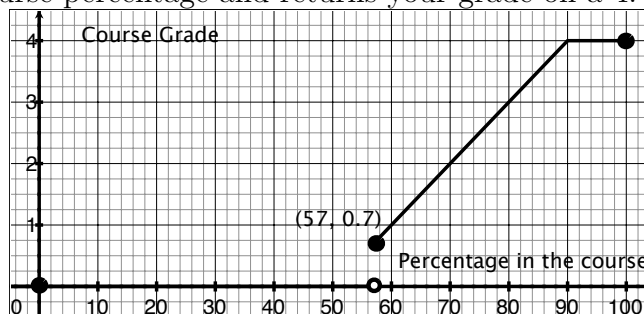
You are responsible to find out what material was covered and assignments given if you miss class. Your homework is expected to be written up neatly, clearly, and completely. No partial credit is given on individual problems so make your final answer and its required supporting work, easy to find and identify. No extensions are given for written homework.

After receiving your corrected homework you are given one week to turn in a rewrite that can earn full marks. Answers are marked only as right or wrong so you are responsible for finding and correcting your mistakes. I am available to help answer questions during office hours, but no additional class time will be dedicated to that homework assignment. Rewrites must be clearly marked as such and stapled on top of the original work with the section number clearly visible.

Quizzes: A quiz is given every week at the instructor's discretion. Generally you will be given 15 minutes for the quizzes after the homework question period is over on Wednesdays. No make up quizzes, unless previously arranged, will be given, but I will drop the lowest scoring quiz so that you have some flexibility.

Grades: The following weights will be used to calculate your percentage in the course. The function graphed takes your course percentage and returns your grade on a 4. scale.

Mini-Quizzes	5%
MyMathLab assignments	15%
Handwritten assignments	15%
Quizzes	10%
2 Exams	30%
Final	25%



Outside Resources:

Come visit me in the TLC (Snoqualmie 260) for office hours! If you are unable to make my posted office hours, please let me know and I will try to work with your schedule. Also remember that you are not alone in this class and your peers are a valuable (and often underutilized) resource.

This course has a Collaborative Learning Section (TMATH 158) which supports it and is offered Thursdays 10:10-12:10. The course focuses on enhancing problem-solving skills for pre-calculus by having students work with a facilitator to strengthen their skills in critical thinking via group problem sessions in pre-calculus and its applications.

Visit the Teaching & Learning Center (TLC)! Math tutors are available Monday through Thursday from 9am-7pm and Fridays from 9am-3pm. Complete information is available at <http://www.tacoma.uw.edu/teaching-learning-center/teaching-learning-center>.

Notes:

- I do *not* check my email after 4pm. Any questions sent to my email after 4pm may not receive a response until the next morning. The University's e-mail policy is posted at: <http://www.tacoma.uw.edu/information-technology/uw-tacoma-email-policy>
- Bias Reporting: Report an incident of bias or explore how to effectively respond by visiting <http://www.tacoma.uw.edu/reportbias>.
- UW Tacoma is committed to making physical facilities and instructional programs accessible to students with disabilities. Disability Resources for Students (DRS), located in MAT 354, functions as the focal point for coordination for students with disabilities. If you have a physical, emotional, or mental disability that “substantially limits one or more major life activities [including walking, seeing, hearing, speaking, breathing, learning and working],” and require accommodation in this class, please contact DRS at (253)692-4508, email at drsugt@uw.edu or visit <http://www.tacoma.uw.edu/drsugt>.
- The Counseling Center offers short-term, problem-focused counseling to UW Tacoma students who may feel overwhelmed by the responsibilities of college, work, family, and relationships. Counselors are available to help students cope with stresses and personal issues that may interfere with their ability to perform in school. The service is provided confidentially and without additional charge to currently enrolled students. To schedule an appointment, call 253-692-4522 or stop by the Student Counseling Center (SCC), located in MAT 354.
- Campus Safety Information: <http://www.tacoma.uw.edu/campus-safety/home>. Safety escorts are available 24 hours a day, 7 days a week, there is no time limit. Call the main office line at 253-692-4416.
- Inclement Weather: Always check the UW Tacoma Home Page: official campus closures or delays will be announced there first. Course Announcements and Email regarding assignments and expectations during a closure will follow.
- Infants/Children in Class Policy: If you have no choice but to bring a child or children with you to class, please let me know prior to class. You will be responsible for seeing that the child or children are not disruptive to the class. If you are breastfeeding an infant or expressing milk regularly, you may bring an infant or breast pump to class. If you prefer to breastfeed or breast pump outside of class, you may take time out of class to use the lactation room (GWP 410).
- To plagiarize is to use the ideas-or unique phrasings-without acknowledging that they come from someplace other than you. At the UW Tacoma, plagiarism is a violation of the student conduct code and the consequences are serious. If you have questions about what amounts to plagiarism, seek guidance from faculty and the TLC.
- While I have attempted to make this syllabus as complete as possible, adjustments will be made throughout the course. Announcements will be made during class and it is the responsibility of the student to keep updated if class is missed.